No. 774,819. PATENTED NOV. 15, 1904.

H. BARTLEY.

COMPOSITION HORSESHOE.

APPLICATION FILED AUG. 8, 1903.

NO MODEL.

Fig. 3.

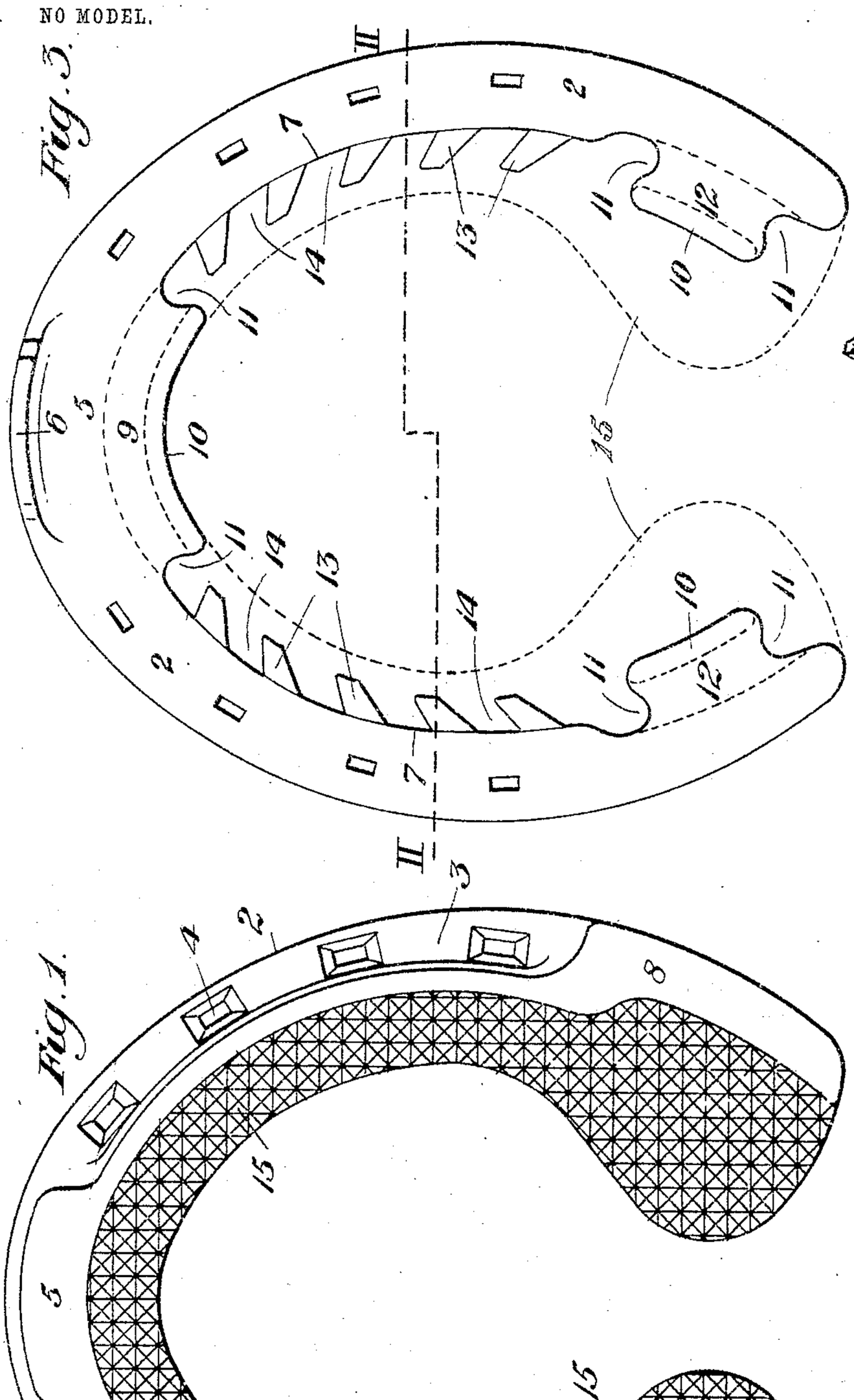


Fig. 5

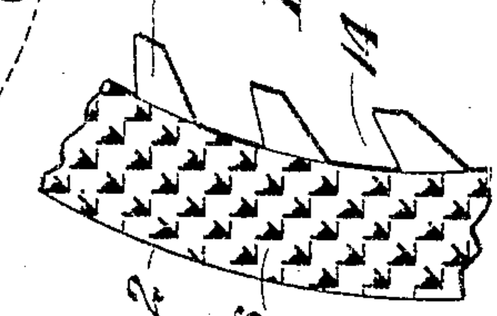


Fig. 4.

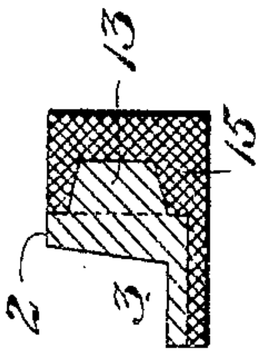
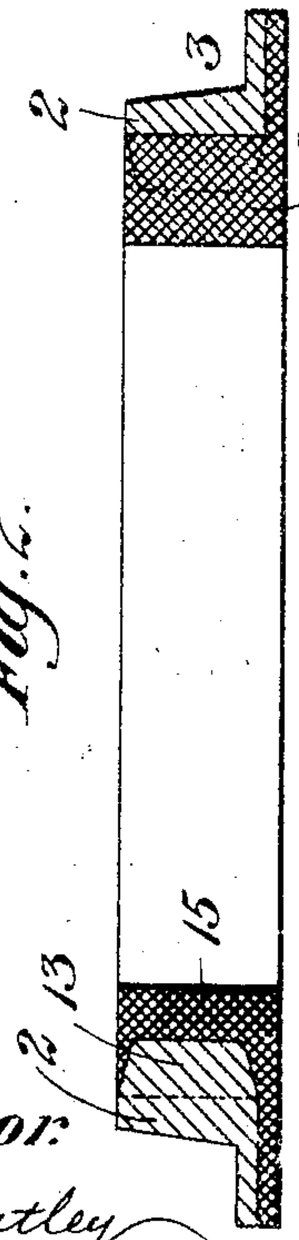


Fig. 1.



Fig. 2.



Witnesses:

Anna B. Jones

Chas. L. Appley

Inventor:

Harvey Bartley

by C. M. Clarke his atty.

No. 774,819. Patented November 15, 1904.

# UNITED STATES PATENT OFFICE.

HARVEY BARTLEY, OF PITTSBURG, PENNSYLVANIA.

## COMPOSITION HORSESHOE.

SPECIFICATION forming part of Letters Patent No. 774,819, dated November 15, 1904.

Application filed August 8, 1903. Serial No. 168,833. (No model.)

*To all whom it may concern:*

Be it known that I, HARVEY BARTLEY, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Composition Horseshoes, of which the following is a specification, reference being had therein to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an under plan view of my improved horseshoe. Fig. 2 is a cross-section taken on the line II II of Fig. 3. Fig. 3 is an upper plan view of the metal base. Fig. 4 is a partial sectional view similar to Fig. 2, showing a modified construction. Fig. 5 shows a portion of the surface of the base provided with holding indentations.

My invention relates to improvements in combination-horseshoes in which a cushioning portion is incorporated with a holding-base, and it refers more particularly to the construction of the base and to the supporting and anchoring devices for the cushioning portion, whereby these parts are securely incorporated with each other.

Referring now to the drawings, 2 represents the base, made in one integral piece of metal, preferably of forged or cast steel or aluminium, the sides of which are recessed, as at 3, and provided with the usual nail-holes 4. The toe 5 is reinforced, as indicated, and is provided with the usual upwardly-extending tip 6 of suitable form to engage the toe of the hoof. The inner edge 7 of the base is preferably continued around for the full length of the shoe and of the same depth as the toe 5, being somewhat thickened at the rear portion, as indicated at 8, and adapted as thus formed to provide a surrounding rigid holding-frame for the cushion and also a wearing edge adapted to bear upon the pavement.

Extending backwardly from the toe 5 is a web portion 9, terminating in a downwardly-turned lip 10, forming an anchor adapted to engage and hold the cushion. Each end of such backwardly-extending anchor is preferably recessed or narrowed, as at 11, the terminal corners projecting so as to approximate a dovetail shape which will maintain a firm binding hold upon the cushion. At the inner portion of the heels of the base are provided similar inwardly-projecting holding anchors or extensions 12, the ends of which are preferably recessed in a similar manner as at 11 and provided with similar holding-lips 10. Between the forward and back holding anchors 9 and 12, arranged along the inner edge of the base, are a series of inwardly and forwardly projecting tongues or supplemental anchors 13 of the full depth of the base, as shown in Fig. 2, or of less depth, as shown in Fig. 4. These anchors 13 are preferably arranged at an acute or oblique angle to the inner face of the base, whereby recesses 14 are provided, into which the cushioning substance is forced, so that it thus firmly embraces the anchors or tongues 13, while the tongues themselves are firmly embedded in the cushion with a binding hold. As thus constructed it will be seen that all of the holding anchors and tongues extend inwardly and that the recessed cavities between and around them provide an efficient holding means for the cushion. The number of the holding-anchors and their location at the front, back, and intermediate portions of the base provide substantial bearing-surface against which the cushion will press and by which it will be well supported.

While the arrangement of the anchors as shown is productive of good results, it is obvious that it may be varied, as by eliminating the front and back dovetail-formed anchors and providing one continuous series of the anchors 13 with the intervening spaces 14.

The cushioning substance, which is either of rubber or a combination of rubber and canvas, or of any other suitable combination or other material, is indicated by the numeral 15 and is pressed into the holding-cavities and around the anchoring portions and tongues of the shoe-base so as to completely fill such cavities and surround the holding devices, as clearly shown.

For the purpose of insuring a more firm engagement with the cushion, the upper and lower or both surfaces of the base 2 are provided with roughened projections, recesses,

grooves, or holding-cavities in any suitable manner, as indicated at 16. This may be done by a stamping-die, a gouging-tool, or otherwise, as desired, and such a surface will further insure the binding engagement of the base with the cushion.

It will be understood that the cushioning substance is preferably forced around and over the entire upper portion of the base, thus providing a good bearing-surface for the hoof.

In attaching the shoe the nails are driven through the openings 4 and the upper cushioning layer and into the hoof in the usual manner.

As thus constructed I have provided a very serviceable and efficient horseshoe capable of long-continued use and of holding the cushioning substance tightly to the base without displacement under the excessive wear or jar incident to devices of this kind.

Changes and variations may be made by the skilled mechanic in the design, proportions, or other details of the invention—as, for instance, the number, location, and shape of the holding-anchors—but all such are to be considered as within the scope of the following claims.

What I claim is—

1. A horseshoe-base provided on its inner sides with forwardly and inwardly projecting holding-anchors, with intervening recesses formed by the adjacent faces of said anchors and by the inner curved sides of the base, substantially as set forth.

2. A horseshoe-base provided on its inner sides with forwardly and inwardly projecting and tapering holding-anchors, with intervening recesses formed by the adjacent faces of said anchors and by the inner curved sides of the base, substantially as set forth.

3. A horseshoe-base provided on its inner sides with forwardly and inwardly projecting holding-anchors, with intervening recesses formed by the adjacent faces of said anchors and by the inner curved sides of the base, the faces of the adjacent holding-anchors extending generally in the same direction, substantially as set forth.

4. A horseshoe-base provided at its toe and heel portions respectively with inwardly-extending holding-anchors of dovetail form, and intervening forwardly and inwardly extending holding-anchors, with intervening recesses formed by the adjacent walls of said anchors and by the inner curved sides of the base, substantially as set forth.

5. A horseshoe-base provided at its toe and heel portions respectively with inwardly-extending holding-anchors of dovetail form, and intervening series of obliquely-arranged inwardly-extending holding-anchors, with intervening recesses, substantially as set forth.

6. A composite horseshoe consisting of a base provided at its toe and heel portions respectively with inwardly-extending holding-anchors of dovetail form, and intervening obliquely-arranged holding-anchors and a cushioning substance incorporated therewith, substantially as set forth.

7. A composite horseshoe consisting of a base provided at its toe and heel portions respectively with inwardly-extending holding-anchors of dovetail form, and intervening obliquely-arranged tapered holding-anchors, and a cushioning substance incorporated therewith, substantially as set forth.

8. A composite horseshoe consisting of a base provided at its toe and heel portions respectively with inwardly-extending holding-anchors of dovetail form, and intervening obliquely-arranged tapered holding-anchors, with recesses formed by the adjacent faces of said anchors and by the inner curved sides of the base, and a cushioning substance incorporated therewith, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HARVEY BARTLEY.

Witnesses:
JAS. J. MCAFEE,
C. M. CLARKE.